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PETROLITE

PRODUCT INFORMATION

TOLAD® 511
Electrical Conductivity Additive

DESCRIPTION: A unique non-metallic additive which increases the electrical conductivity of petroleum distillates. It is designed to reduce the electrostatic hazards associated with the handling of fuels and other hydrocarbons which otherwise have low electrical conductivity.

TYPICAL PHYSICAL PROPERTIES:

Specific Gravity	@60°F (16°C)	0.88
Density	@60°F (16°C)	7.3 lb/US gal
Flash Point	SFCC	112°F (44°C)
Pour Point	ASTM D-97	<-40°F (<-40°C)
Viscosity	ASTM D-445	
	@60°F (16°C)	15 cSt
	@30°F (-1°C)	28 cSt
	@0°F (-18°C)	80 cSt

APPLICATION: TOLAD® 511 Electrical Conductivity Additive increases the safe dissipation of electrostatic charges through the liquid hydrocarbon. This reduces the accumulation of hazardous surface charges. **The use of this additive does not lessen the need to follow accepted safety practices, including bonding, grounding, and flow control.**

Most distillate fuels and hydrocarbon solvents have relatively low conductivities (high resistivity). Treatment (e.g. filtration) and transfer operations cause charge separation of ionizable components in the hydrocarbon. This can result in significant surface voltages even within properly grounded equipment. If the surface voltage exceeds a critical value, an incendiary electrical discharge can occur, resulting in an explosive fire if the vapor phase is a flammable mixture.

Conductivity additive injection should utilize a continuous injection proportionating pump to deliver additive upstream of open vessels (tank trucks, storage tanks), particularly those downstream of charge generators such as most filters, pumps, and small diameter piping. Injection can be integrated into the loading rack with the additive pump being triggered by the loading rack pump. This is an excellent method to ensure that every load of fuel contains the correct amount of additive.

Low temperature handling is excellent; however, since this additive is used at very low dose rates, dilution often allows more accurate metering. Almost any dry hydrocarbon is a suitable diluent.

FEATURES AND BENEFITS:

Feature:	Benefits:
Broad application	Works effectively in most hydrocarbons - provides protection for multiple streams - provides downstream protection
Non-metallic formulation	Highly compatible with other fuel additives
	Combusts completely with no ash

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(Continued Features and Benefits)

Low addition rates	Requires small concentrations
	Minimizes additive inventories
	Controls treatment costs
Proven performance	Reduces risk of devastating losses
	Completes safety program to prevent electrostatic incidents

SAFETY AND HANDLING:

Read the Material Safety Data Sheet (MSDS) for additional information. Observe warning label on product container. Keep container closed when not in use. Always wear eye and skin protective equipment. Avoid breathing of vapors and contact with skin or eyes. In case of skin contact, wash areas with soap and water. In case of eye contact, flush eyes with water and get medical attention. See the MSDS for additional information. Contain spills to prevent chemical from entering a waterway and see the MSDS for additional information.

MATERIALS COMPATIBILITY:

Suitable:

Metals:	aluminum, ductile steel, mild steel, 304 s.steel, 316 s. steel
Plastics:	plexiglass, polyethylene HD, PVC, fiberglass
Elastomers:	TEFLON TFE, VITON fluoroelastomer

Not Suitable:

Metals:	
Plastics:	HD polypropylene, polyurethane
Elastomers:	buna N, Ethylene Propylene copolymer, HYPALON PE, neoprene

SHIPPING AND REGULATORY:

National Motor Freight Classification

item number	50190
article	Fuel oil treating compounds
class	70 LTL) 35 (TL)

DOT Hazard Classification placard: combustible liquid

National Fire Protection Association Rating

Health	1	Flammability	2
Reactivity	0	Special Hazards	None

Petrolite Emergency Hotline: 1-800-424-9300 (CHEMTREC)

Petrolite Corporation is a subscribing member of the Chemical Manufacturers Association (C.M.A.) and actively supports their Responsible Care™ program.

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